Application No. 09/428,679
Amndt.dated: July 08, 2004
Reply to Office Action mailed: April 21, 2004

REMARKS/ARGUMENTS

Claims 6-12, 15-18, 20, and 22-36 are pending in this application. No claims have been cancelled or amended. Reconsideration is requested in the light of the following discussion of the grounds of rejection in relation to the cited references.

Allowance of claim 31 and the indication of allowability of claims 7, 27 and 30 if rewritten in independent form have been noted with appreciation.

The Examiner's comments in response to arguments advanced in the Response filed August 11, 2003 also are appreciated even though applicant continues to disagree with the Examiner's evaluation of the references in relation to the claims, as will be discussed below.

Claim Rejections under 35 US 103

Claims 6, 9-11, 16, 23-26, 28-29, 32-36 have been rejected as unpatentable over US Patent 5,675,721 (Freedman) in view of US Patent 5,963,209 (Hoppe). Claims 12, 15, 17-18, 20 and 22 have been rejected as unpatentable over Freedman in view of US Patent 6,330,583 (Reiffin). These rejections are respectfully traversed for at least the following reasons.

Freedman

Initially, the Examiner's characterization of Freedman is believed to be self-contradictory. In the rejection of claims 12 and 17, the Examiner asserts: "*. . . Freedman does not disclose wherein the workstations are operating in parallel, . . .*"(see also Paragraph 2 of the Office Action). Then, in Paragraph 14 it is asserted: "*As per claim 6, Freedman et al discloses . . . operating the plurality of other computers in parallel . . . (column 7 lines 35-50)*". Freedman is not seen to disclose "parallel processing" at column 7:35-50 (or elsewhere) – that passage discusses presentation of to a user of perceivable objects linked together in a tree structure. Consequently, the Examiner's evaluation: "*. . . Freedman does not disclose wherein the workstations are operating in parallel, . . .*"is correct and the rejection of claims 6, 9-11, 16, 23-26, 28,29, 32-36 relying on Freedman for teaching "parallel processing" as set forth in these claims is without merit and should be withdrawn.

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It has also been noted that the basic grounds of rejection cite to Freeman col. 5, lines 25-50, which provides a partial (but incomplete) overview of Freeman's system and its operation. With respect, the Examiner is reminded that it is incumbent on the Examiner to consider each reference "as a whole" in evaluating what is disclosed by the reference. MPEP 2141.02.

Freedman discloses "a computer network data distribution and retrieval system comprising computers that function as data storage repositories and network nodes" – col. 5, lines 28-30. Freedman teaches:

> "Each computer in the system runs an application program that enables that computer to act as a network node. When the application program needs an object that is not stored on the local computer, it sends a request to the remote computer that owns the object. If that remote owner computer is not already responding to requests from too many other requesting computers, the owner computer transmits the object to the requesting computer across the network and adds the requesting computer to the owner computer's list of requesting computers to which it is responding. . . . However, if the computer that owns the object is already responding to its maximum number of requesting computers, the owner computer removes from its queue one of the prior requesting computers to which it had been responding. The owner computer also sends the removed requesting computer a list of all the other requesting computers to which the owner computer has been responding. The removed requesting computer can then send its data requests for more detail about the object to the computers in that list. This process continues until the computer that can respond to requests the fastest is found. Thus, perceivable objects will propagate around the network and every requesting computer will attempt to retrieve objects from nearby, fast computers." – col. 5, lines 41-65.

In Freedman's system all of the computers (i.e. both the "user's" (local) computer and the "remote" computers run) "an application program that enables that computer to act as a network node." The "user's computer retains local copies of all perceivable objects that it has requested. . . the local copies contain only the information that is necessary to perform the processing tasks currently needed by the user's computer. In other words, the "user" computer itself carries out required processing using perceivable objects to the extent it has stored information necessary to perform the required processing tasks. "If a local perceivable object copy does not have certain necessary information, the user's computer requests the information over the network and obtains the needed information from another copy of the perceivable

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object on another network computer." – col. 6, lines 33-43; see also col. 5, lines 41-45. The "users computer" in Freedman processes perceivable object(s), whether stored locally or received from a remote computer (col. 14, lines 11-24) to create object representations at a level required by a user. This mode of operation is true of <u>all</u> the computers on Freedman's network and does not correlate with the operative interaction between the "first computer" or the "visualization console" and the "other computers" or "workstations" or "second computers" recited in any of independent claims 6, 12, 17, 23, 28, 31, 32, and 33 of this application.

Thus, Freeman is deficient as a reference and is distinguished from each of the rejected claims.

Freedman in view of Reiffin

The rejection based on Freedman in view of Reiffin is deficient in several respects and is respectfully traversed.

As noted above, the Examiner concedes in relation to claims 12, 15, 17, 18, 20 and 22 that "Freedman does not disclose wherein the workstations are operating in parallel, . . .", asserting that "this is disclosed in Reiffin in column 2, lines 1-7." The rationale expressed by the Examiner is: *"It would have been obvious to one of ordinary skill in the art . . . to have the workstations of Freedman operate in parallel because this would speed up the computation time of composing the three-dimensional scene."* The assertion by the Examiner, in the context of Reiffin at col. 2, lines 1-7, in essence is a sweeping abstract generalization that it would have been obvious to employ parallel computer operations in Freedman's system. This is an improper, speculative, conclusory assertion, unsupported by any objective evidence.

The grounds of rejection advanced by the Examiner based on Freeman and Reiffin do not satisfy the burden of showing a *prima facie* case of obviousness supported by objective evidence. When determining obviousness, "the [E]xaminer can satisfy the burden of showing obviousness of the combination 'only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." *In re Lee*, 277 F. 3d 1338, 1343, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002), citing *In re Fritch*, 972 F. 2d 1260, 1265, 23 USPQ2d

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1780, 1783 (Fed. Cir. 1992). "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'" *In re Dembiczak,* 175 F. 3rd at 999, 50 USPQ2d at 1617, citing *McElmurry v. Arkansas Power & Light Co.,* 995 F. 2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993). Note also MPEP 2143.

The Examiner's rationale - *"It would have been obvious to one of ordinary skill in the art . . . to have the workstations of Freedman operate in parallel because this would speed up the computation time of composing the three-dimensional scene."* is merely speculative and conclusory, unsupported by any objective evidence and is therefore untenable.

Nothing is seen in Freeman to suggest, and the Examiner has provided no objective evidence to show, how Freeman's system would have been amenable to "parallel processing" as speculated by the Examiner, especially in the context of the queuing, prioritizing and offloading operations of an owner computer in response to a request for an object from a user computer, as outlined by Freedman at col. 5, lines 41-65. In relying on Reiffin, the Examiner cites column 2, lines 1-7 which sets forth a broadly stated "object" of Reiffin's invention and the Examiner does not cite any definitive technical teaching of Reiffin considered as whole – as it must be – or of Freeman, to show how Reiffin could have been used to modify Freeman in a manner that would (a) have been consistent with Freeman's system operability and (b) would have led to the invention claimed as whole - see MPEP 2141.02. The Examiner has provided no objective evidence to show how Reiffin's required mode of operation (noting Reiffin's disclosure at col. 2, lines 1067, for example), might be amenable to incorporation in Freedman's system while retaining the operational functionality taught by Freedman. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP 2143. Note also the strictures set forth in MPEP 2143.01.

Nor has the Examiner shown that Freedman and Reiffin teach or suggest all claim limitations of the claims against which those references have been applied. For example, neither reference teaches both the parallel operation of computers (or workstations) to create LOD representations and communicating the LOD representations in parallel as set forth in each of

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claims 12, 15, 17, 18, 20 and 22 of the present application rejected on the basis of Freeman and Reiffin. Although Reiffin has not been applied in the rejection of claims 6, 9-11, 16, 23-26, 28, 29, and 32-36, Reiffin and Freeman could not have been combined under Section 103 against those claims for the same reasons as set forth above. Consequently, claims 6, 9-11, 16, 23-26, 28, 29, and 32-36 are believed to be patentable over Freedman and Hoppe as well as over Freeman, Hoppe and Reiffin and in condition for allowance.

Hoppe

The rejection of claims 6, 9-11, 16, 23-26, 28, 29 and 32-36 is based on Freeman in view of US Patent 5,963,209 (Hoppe). The deficiencies of Freeman have been discussed above. Hoppe was discussed in the Response filed August 11, 2003 and it is maintained, for the same reasons, that Hoppe, considered as whole as it must be, would not have taught modification of Freeman in the manner asserted by the Examiner. Claims 6, 9-11, 16, 23-26, 28, 29 and 32-36 are not rendered obvious under 35 US 103 by Freedman in view of Hoppe or by Freeman in view of Reiffin in view of Hoppe, and all of those claims are in condition for allowance.

Dependent Claims.

Claims 12 and 22 are further distinguished from Freedman. Freedman at col. 5, lines 25-50 does not support the Examiner's contentions relating to claim 22 in relation to user input as set forth in claim 22. No reference or implication of "user control" is seen in that passage of Freeman. For example, at col. 5, lines 43-45, Freedman states: "When the application program needs an object that is not stored on the local computer, it [i.e. the application program] sends a request to the remote computer that owns the object." (Insertion added for emphasis.) No reference to "user control" is seen. See also col. 5, lines 52-65. The Examiner's reference to Freeman at col. 1, lines 19-21 simply reads too much into what Freeman actually states. The issue is not that "Freeman could create subsequent scenes" as postulated by the Examiner but how those scenes are created. Applicant maintains the Freedman does not disclose the features as recited in claim 22 (or claim 12) and the Examiner has made no factual showing to the contrary. The system feature of claim 12 that a "visualization console is operable under user control to communicate user requests to the plurality of workstations . . ." likewise further distinguishes claim 12 from Freedman's system.

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In rejecting claims 26, 30 and 36 (it being noted the Examiner indicated claim 30 would be allowable if rewritten in independent form), the Examiner asserted Freedman discloses that "stored three dimensional scene objects are distributed in a predetermined manner amongst the plurality of second computers", citing Freedman col. 5, lines 25-50. This characterization of Freedman is traversed because it manifestly contradicts Freedman's disclosure that "perceivable objects will propagate around the network . . ." – see col. 5, lines 62-65. Note also Freedman, col. 6, lines 32-34 – "the user's computer retains local copies of all perceivable objects that it has requested." Note that in Freedman a "user's computer" is differentiated from other computers only to the extent it denotes a network computer that is in use, because all computers in Freedman's system are enabled to function as a "user computer", i.e. in Freedman "[e]ach computer in the system runs an application program that enables the computer to act as a network node." (col. 5, lines 41-43). Thus the objects stored at individual ones of Freeman's computers will change dependent on the number of objects each computer requests and obtains from other computers. Clearly, this is not distribution "in a predetermined manner" as set forth in any of claims 26, 30 and 36.
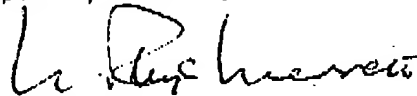
The remaining dependent claims are patentable at least for the same reasons as advanced in relation to their parent claims.

CONCLUSION:

Favorable consideration and early allowance of the pending claims are respectfully solicited. If there are any remaining issues that could be resolved by discussion, a telephone call to the undersigned attorney at (972) 862-7428 would be appreciated.

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